

PROJECT DESCRIPTION

THIS PORTION OF THE PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 40 AT JOPPA FARM ROAD IN HARFORD COUNTY. US 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

AN EIGHT-PHASE, FULLY ACTUATED NEMA CONTROLLER HOUSED IN A BASE MOUNTED CABINET EXISTS AT THIS INTERSECTION. THE CONTROLLER OPERATES AS A SIX-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH EXCLUSIVE LEFT TURN PHASES FOR EASTBOUND AND WESTBOUND US 40 AND SIDE STREET SPLIT PHASING. INSTALL VIDEO INTERFACE EQUIPMENT INTO THE EXISTING CABINET.

WORK WILL INCLUDE THE REPLACEMENT OF DETECTORS AND THE INSTALLATION OF AN ALTERNATE PEDESTRIAN PHASE ACROSS THE EAST LEG OF US 40.

PHASE CHART

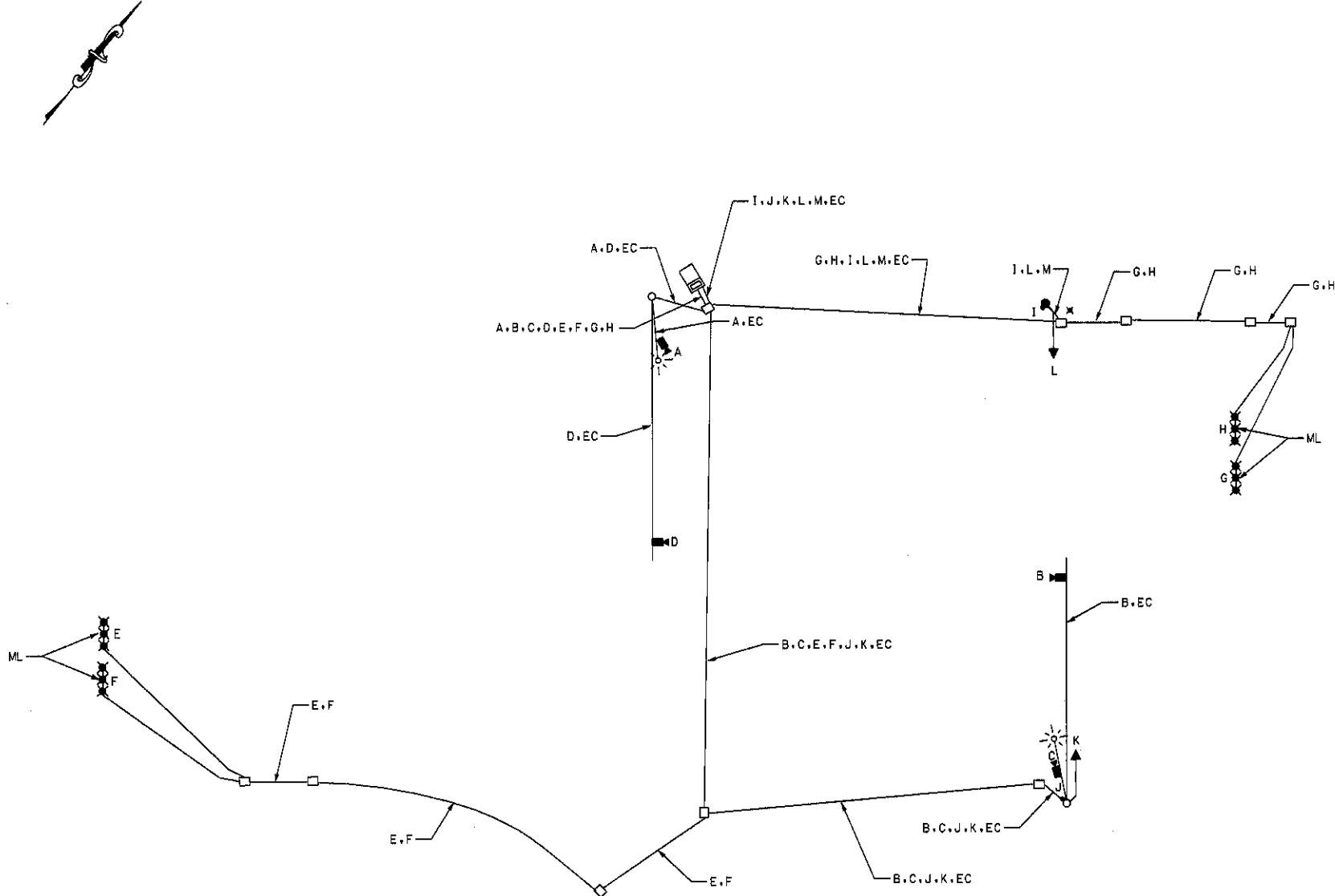
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73
	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73
PHASE 1 & 5	<G-	<G-	R	R	<G-	<G-	R	R	R	R	R	R	R	R	DW	DW
1 & 5 CHANGE	PHASE 1 & 5 CHANGE MAY CHANGE TO PHASE 1 & 6, 2 & 5 OR 2 & 6															
PHASE 1 & 6	<G-	<G-	G	G	R	R	R	R	R	R	R	R	R	R	DW	DW
1 & 6 CHANGE	<Y-	<Y-	G	G	R	R	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 & 5	<R-	<R-	R	R	<G-	<G-	G	G	R	R	R	R	R	R	DW	DW
2 & 5 CHANGE	<R-	<R-	R	R	<Y-	<Y-	G	G	R	R	R	R	R	R	DW	DW
PHASE 2 & 6	<R-	<R-	G	G	<R-	<R-	G	G	R	R	R	R	R	R	DW	DW
2 & 6 CHANGE	<R-	<R-	Y	Y	<R-	<R-	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 3	<R-	<R-	R	R	<R-	<R-	R	R	Y	Y	G	R	R	R	DW	DW
3 CHANGE	<R-	<R-	R	R	<R-	<R-	R	R	Y	Y	Y	R	R	R	DW	DW
PHASE 3 ALT.	<R-	<R-	R	R	<R-	<R-	R	R	Y	Y	G	R	R	R	WK	WK
PED. CLEAR	<R-	<R-	R	R	<R-	<R-	R	R	Y	Y	G	R	R	R	FL/DW	FL/DW
3 ALT. CHANGE	<R-	<R-	R	R	<R-	<R-	R	R	Y	Y	Y	R	R	R	DW	DW
PHASE 4	<R-	<R-	R	R	<R-	<R-	R	R	R	R	R	Y	Y	Y	DW	DW
4 CHANGE	<R-	<R-	R	R	<R-	<R-	R	R	R	R	R	Y	Y	Y	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR.

CATAGORY CODE NO.	QUANTITY	DESCRIPTION
585624	130 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
585620	600 LF	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
816005	2 EA	250 FOOT VIDEO CABLE TO CONTROLLER
802145	8 EA	ADJUST EXISTING HANDHOLE TO FINAL GRADE W/COLLAR
810555	4 EA	MICRO-LOOP PROBE SET WITH 1000 FOOT LEAD-IN
816001	4 EA	VIDEO DETECTION CAMERA
816015	1 EA	VIDEO INTERFACE EQUIPMENT
805160	30 LF	1 INCH LIQUID TIGHT, FLEXIBLE, NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
862102	180 LF	SAW CUT FOR LOOP DETECTOR
870160	10 LF	2 INCH DIAMETER PVC ELECTRICAL CONDUIT, SCHEDULE 80, TRENCHED
868003	1 EA	10 FOOT BREAKAWAY PEDESTAL POLE
860282	2 EA	12 INCH PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOUNT
860278	2 EA	12 INCH PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT
865201	2 EA	INSTALL PUSHBUTTON AND SIGN
203030	1 EA	TEST PIT EXCAVATION
801004	1 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	10 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
837001	1 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FOOT LENGTH
861104	400 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861105	420 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
816010	2 EA	500 FOOT VIDEO CABLE TO CONTROLLER
873001	LS	REMOVE AND DISPOSE EXISTING EQUIPMENT

WIRING DIAGRAM



WIRING KEY

- A & D VIDEO DETECTION 250 FT. PREMANUFACTURED CABLE
- B & C VIDEO DETECTION 500 FT. PREMANUFACTURED CABLE
- E-H MICRO-LOOP PROBE
- I-J 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K-L 3 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- M STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- EC EXISTING CABLE
- ML MICRO-LOOP PROBE
- X GROUND ROD

EQUIPMENT LIST "A"

EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
(410) 321-2781

MR. STEVE MARCISZEWSKI  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
(410) 321-2761

MS. SUENETTE POPE  
ASSISTANT DISTRICT ENGINEER - UTILITIES  
(410) 321-2841

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS  
(410) 787-7630

MR. EUGENE BAILEY  
TEAM LEADER SIGN OPERATIONS  
(410) 787-7676

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS  
(410) 787-7631

MR. MIKE STOCKER  
SUPPLY OFFICE  
SIGNAL SHOP WAREHOUSE  
(410) 787-7668

MR. ED RODENHIZER  
TEAM LEADER SIGNAL OPERATIONS  
(410) 787-7652

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
GENERAL INFORMATION  
US 40 AT JOPPA FARM ROAD

DRAWN BY: M.HOWELL	F.A.P. NO.	TS NO.	SHEET NO.
CHECKED BY: J.ZAYDEL	S.H.A. NO.	100.91	
SCALE: 1" = 20'	COUNTY: HARFORD	T.I.M.S. NO. E617	
DATE: 8-22-02	LOG MILE:		38 OF 50

ADDENDUM NO 1  
12/30/02

TRAFFIC CONCEPTS, INC.

325 Gambrills Road  
Suite E  
Gambrills, MD 21054  
(410) 923-7101